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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,789	03/19/2004	William R. Kowalski	2004-2	8879

7590 02/22/2007

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EXAMINER	
LEFF, STEVEN N	
ART UNIT	PAPER NUMBER
1761	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/804,789	KOWALSKI, WILLIAM R.	
	Examiner	Art Unit	
	Steven Leff	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☒ Claim(s) *2 and 3* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

- Claims 2 and 3 objected to because of the following informalities: It appears the word "a" should be placed before the word "needle", and further the word "of" should be placed before the word "flow "on line 5 of claim 2. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- Claims 1/ 5-28, and 31-32, 2/ 5-28, and 31-32, 3/ 5-28, and 31-32, and 4/ 7, 8-9, 20-23, 28-29, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - Claim 1 is reject due to the phrase "combining said orifice with a needle for injecting fluids". The phrase as currently written is indefinite due to the fact that the orifice could be combined with needle in the same apparatus or could be combined wherein the needle contains the orifice.
  - Claims 1-3, and 10 are rejected due to the phrase "said fluid is a gas". It is unclear as to the metes and bounds of the claims as they are currently written. For example, describing a starting material as a fluid or gas would be tantamount to describing two different states, which are distinguishable from one another due to chemical properties thus precluding one from describing a starting material as a fluid and a gas.
  - Claim 3 recites the limitation "said needles penetrate a permeable solid" on line 7 of claim 3. There is insufficient antecedent basis for this limitation in the claim. Claim 3 recites on lines 3 and 4 the word "needle" which represents a single needle.
  - Claim 7 is rejected due to the phrase "said pressure above the orifice". The phrase could be meant to represent actually physically above the orifice or it could be meant to represent the pressure before the orifice.

- Claim 28 lacks antecedent basis due to the phrase "said needle penetration" with claim 1.

- Claim 31 is rejected due to the phrase "system for injection". The phrase could be meant to represent either the system for injecting the gas or the fluid or the system used injecting the needles.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- Claims 1-3, 5-18, 27, 28-32, are rejected under 35 U.S.C. 102(b) as being anticipated by Wattenbarger. (3216826)

  With respect to claims 1-3, 5, 6, 8-18, 27, 28-32, Wattenbarger teaches a method for treating a solid meat mass, and an improved method for distributing a non-meat ingredient throughout a substantially solid meat mass. With respect specifically to claim 1, Wattenbarger teaches sizing an orifice to an accurate fluid flow rate, (col. 3 line 20+) and combining the orifice with a needle for injecting fluids, where the fluid is a gas. (col. 4 line 52+) With respect to claim 2, Wattenbarger teaches a pressurized fluid source (col. 3 line 9+) where the pressurized fluid flows through an orifice and a needle (col. 4 line 61+) where the needle penetrates a permeable solid. (col . 1 line 14+) Wattenbarger continues by teaching that the orifice precisely controls the mass of flow of the fluid through the needle during injection, (col. 4 line 61+) and further teaches that the fluid is gas. (col. 4 line 52+) Regarding claim 3, Wattenbarger teaches a fluid at a fixed source pressure (col. 3 line 20+) where the fluid flows through an orifice and a needle (col. 4 line 54+) such that the orifice accurately controls the constant flow of the fluid through the needle (col. 4 line 61+) and further where the fluid may be a gas. (col. 3 line 71+) Wattenbarger further teaches that the pressure above the orifice is greater than about 2 times the pressure below the orifice and further where the critical pressure is

approximately .53 times the pressure above the orifice. (col. 3 line 20+) The multiplicity of needles is located in a gas manifold for delivering the gas (col. 4 line 69) and a hydraulic drive for injecting into the permeable solid. (col. 5 line 25+)

Wattenbarger continues by teaching that the gas contains carbon dioxide, carbon monoxide, or ozone and Wattenbarger specifically teaches the use of carbon dioxide, (col. 2 line 52+) and where the fluid pressure is within the range of 50 P.S.I. to 750 P.S.I. (col. 7 line 27+) and the needle penetration is at a continuous rate of approximately .5 inch per second to 24 inches per second. (col. 3 line 29+) With regards to the needles Wattenbarger recites that a multiplicity of needles may be used, (col. 4 line 68+) that the fluid flows at a continuous rate, (col. 3 line 35) and that the needles may have a means for preventing the blockage thereof. (col. 4 line 74+)

With regards to claim 17, in the instance when the gas flows through a completely open orifice, the orifice would match the size of the internal diameter of the needle.

Regarding claims 29 and 30 Wattenbarger teaches an apparatus which is capable of having an orifice size with a diameter which is specifically less than .01 inches.

- Claims 1, 4-7, 9, 12, 13, 16-18, 27-28, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Harrington. (2674179)

With respect to claims 1, 3, 5-7, 9, 12, 13, 16-18, 27-28, and 32, Harrington teaches a method for treating a solid meat mass, by injecting fluids through needles and an improved method for distributing a non-meat ingredient throughout a substantially solid meat mass. With respect specifically to claim 1, Harrington teaches sizing an orifice to an accurate fluid flow rate where the fluid is a gas, (col. 5 line 13+) and combining the orifice with a needle for injecting fluids. (col. 7 line 30+) With respect to claim 4, Harrington teaches a fluid which flows through an orifice and where the adjustment of the orifice size stops when the desired flow rate is achieved (col. 3 line 9+) and the orifice is used in conjunction with a needle to inject fluid.

Harrington continues by teaching that the pressure above the orifice is greater than about 2 times the pressure below the orifice, (col. 2 line 30+) that the critical pressure is approximately .53 times the pressure above the orifice, that the needles may be removed, (col. 3 line 28+) and that the needle penetration is at a continuous rate between approximately 0.5 in./sec. and approximately 24 in./sec. (col. 6 line 24)

- Claims 1-6, 8, 10-13, 15-16, 18-19, and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Liljenberg. (3919931)

With respect to claims 1-6, 8, 10-13, 15-16, 18-19, and 29-31, Liljenberg teaches the injection of any fluid, such as liquid or gas, into any type of pierceable, fluid permeable bodies, specifically meat bodies. (col. 2 line 31+) With respect to claims 1 -4 Liljenberg teaches combining an orifice and a needle, where the orifice is sized to an accurate fluid flow rate and the fluid is a gas. (col. 5 line 65+) Liljenberg continues by teaching that a hydraulic drive system is used within the gas manifold for injecting the permeable solid. (col. 6 line 30+) Regarding claims 1-3, the brine solution is taken as a gas since Liljenberg positively states that the solution for injection may be a fluid or a gas. (col. 2 line 31+)

Further with respect to claims 1-4, and specifically the valve recited on column 5 lines 64+, the office interprets that since the valve is used to adjust pressure, that the movement of the valve in any direction would cause the size of the orifice which the fluid flows through to be increased or decreased in order to achieve the predetermined value as recited on column 5 line 67.

Regarding claims 29 and 30 Liljenberg teaches an apparatus which is capable of having an orifice size with a diameter which is specifically less than .01 inches.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

- Claim 1-3 and 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wattenbarger (3216826) in view of Sholl. (3769037)

Wattenbarger is taken as above.

Regarding claims 1-3 and 19-26, Sholl teaches a method injecting an aqueous solution or suspension, which is suited for injecting meat products such as poultry and the like. (col. 1 line 54+) With respect to claims 1-3 Sholl teaches combining an orifice and a needle, where the orifice is sized to an accurate fluid flow rate and the fluid is a gas. (col. 3 line 50+) Sholl continues by teaching that the gas which is used may be any one of a variety of gases such as carbon dioxide. (col. 2 line 3+) With regard specifically to claims 19-26, Sholl teaches that the pressure is dependant upon the size of the orifice among other things (col. 3 line 51+) and further teaches that the orifices may be formed by a process called "spark discharge drilling", which allows orifices to be easily drilled with a diameter of 0.014 inches or smaller. (col. 3 line 46+)

Therefore although Wattenbarger does not teach the specific orifice sizes, Wattenbarger does teach the general concept that the size of an orifice would affect the pressure requirement, as does Sholl, however Sholl further teaches the specific sizes of the orifices for injecting the material. Consequently, one of ordinary skill in the art would have been motivated at the time of the invention by the applicant to have combined the teachings of Wattenbarger and Sholl in order to produce specifically sized orifices which would allow for a specific pressure in order to achieve the desired results, such as depth of penetration or the quantity of material which is to be introduced into the meat body thus avoiding the material "seeping out" during storage. In addition MPEP 2144.05 II states "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." Therefore regarding claims 1, 2, 3 and 19-26, it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have produced specific orifice sizes in order to produce a product which would have a high degree of stability after being injected, thus increasing the shelf life thereof.

Allowable Subject Matter

There is no allowable subject matter at this time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Leff whose telephone number is (571) 272-6527. The examiner can normally be reached on Mon-Fri 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571)272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SL

KEITH HENDRICKS
PRIMARY EXAMINER